UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,033	04/12/2005	Antonius Johannes Matheus De Graauw	NL 020986	5050

24737 7590 09/06/2006

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER	
ZEWDU, MELESS NMN	
ART UNIT	**PAPER NUMBER**
2617	

DATE MAILED: 09/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/531,033	DE GRAAUW, ANTONIUS JOHANNES MATHEUS	
	Examiner	Art Unit	
	Meless N. Zewdu	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6 and 9-11* is/are rejected.

7)☒ Claim(s) *7 and 8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 April 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is the first on the merit of the instant application.

2. Claims 1-11 are pending in this action.

Specification

This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Claim Objections

Claims 1-11 are objected to because of the following informalities: the claims are not in a USPTO standard form. To improve the formality, examiner suggests to place a semi-colon (;), instead of a comma (,), after each feature or limitation; and taking out the reference numerals in all claims. Appropriate correction is required.

Claims 1-11 are objected to because of the following informalities: the preambles of the claims require improvement by adding an appropriate article, '**a**', or '**an**' or '**the**'. Appropriate correction is required.

Claim 4 is objected to because of the following informalities: the claim recites "transmission line-less" which suggests no connection at all or to the least suggesting wireless connection which is not the case. Appropriate correction is required.

Claim 3 is objected to because of the following informalities: the claim connects the **third semiconductor switch to the ground twice, which is a duplication**. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 and 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Imberg (WO 00/38341).

As per claim 1: Imberg discloses a device comprising:

at least two transmitting branches (see fig. 1, elements TX and TX'), each for transmitting signals via at least one frequency band (see page 3, lines 29-30); at least two receiving branches (see fig. 1, elements RX and RX'; page 4, lines 1-7, lines 27-30), each for receiving signals via at least one frequency band (see abstract; page 4, lines 27-30); an antenna switch for switching said transmitting branches (see fig. fig. 1, element 2); and

an antenna coupled to said branches via said antenna switch (see fig. 1, at least, elements 1, 2), wherein said antenna switch, comprises at least one first semiconductor switch in series coupled between a first transmitting branch and said antenna (see fig.

1, elements D1 or D1' and either of elements TX or TX') and at least one second semiconductor switch in series coupled between a second transmitting branch and said antenna (see fig. 1, elements D1 or D1' and either of elements TX or TX'), and at least one third semiconductor switch coupled in parallel to at least one receiving branch (see fig. 1, elements D2 and D2').

As per claim 2: Imberg discloses a device, wherein said antenna switch comprises at least a fourth semiconductor switch coupled in parallel to at least one further receiving branch (see fig. 1, elements 1, D1, D2', RX and RX').

As per claim 3: Imberg discloses a device, wherein one side of said third semiconductor switch is coupled to said at least one receiving branch (see fig. 4, elements RX, 4 or RX' and 4) and via an inductor to said first and second semiconductor switches see fig. 4, elements RX, 4 or RX' and 4) and the other side is coupled via a capacitor to ground (see fig. 1, elements C1 or C1'), with one side of said fourth semiconductor switch being

coupled via said capacitor to ground (see fig. 1, elements C1 or C1'), and the other side being coupled to said at least one further receiving branch (see fig. 1, elements C1 or C1'), and via a further capacitor to said first and second semiconductor switches (see figs. 1, 2 and 4). Either of C1 or C1' could be labeled as a further capacitor.

As per claim 4: Imberg discloses a device, wherein said antenna switch is transmission-line-less (see figs. 1, 2 and 4).

As per claim 5: Imberg discloses a device, wherein said first transmitting branch transmits in the 900 MHz band (see page 2, line 27-page 3, line 2), said second

transmitting branch in the 1800/1900 MHz band (see page 2, line 27-page 3, line 2; claim 5), said at least one receiving branch receives via the 900 MHz band (see page 2, line 27-page 3, line 2), and said at least one fourth receiving branch comprises a first further receiving branch for receiving via the 1800 MHz band (see claim 5; page 2, line 27-page line 2) and a second further receiving branch for receiving via the 1900 MHz band. (see page 6, lines 9-15).

As per claim 6: Imberg discloses a device, wherein said antenna switch (fig. 1, element 2) comprises at least one transmission line of which one side is coupled to one side of said first semiconductor switch and to said antenna (see figs. 1, 2 and 4), with the other side of said transmission line being coupled to said third semiconductor switch (see figs. 1, elements 1, 2 and 4), and a tap of said transmission line being coupled to one side of said second semiconductor switch (see figs. 1, 2 and 4). Special attention is called to the wave guides ($\lambda/4$) and switching diodes. Furthermore, the ($\lambda/4$) wave guides are seen being tapped/connected on both sides.

As per claim 9: the features of claim 9 are similar to the features of claim 1> Hence, claim 9 is rejected on the same ground as claim 1.

As per claim 10: the features of claim 10 are similar to the features of claim 1. Hence, claim 10 is rejected on the same ground as claim 1.

As per claim 11: the features of claim 11 are similar to the features of claim 1, except claim 11 is directed to a method claim comprising steps the apparatus of claim 1 is intended to follow. Hence, since the apparatus is disclosed and the method is required

by the apparatus so as to perform its intended function, the method steps of claim 11 must be inherent to the prior art or record.

Allowable Subject Matter

Claims 7 and are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: a transistor switch per receiving branch and coupled in series between the receiving branch and a transmission line, is not taught or fairly suggested by the prior art of record. **Note:** examiner suggests applicant to list the receiving branches as multiple or plural or three, instead of (4, 5, 6) as it is the case in the current claim structure. Furthermore, claim 8, whose feature is similar to the feature of rejected claim 5, is objected because of its dependency on claim 7.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meless N. Zewdu whose telephone number is (571) 272-7873. The examiner can normally be reached on 8:30 am to 5:00 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corsaro Nick can be reached on (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any inquiry of a general nature relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600

Meless Zewdu

Examiner

31 August 2006.